

Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

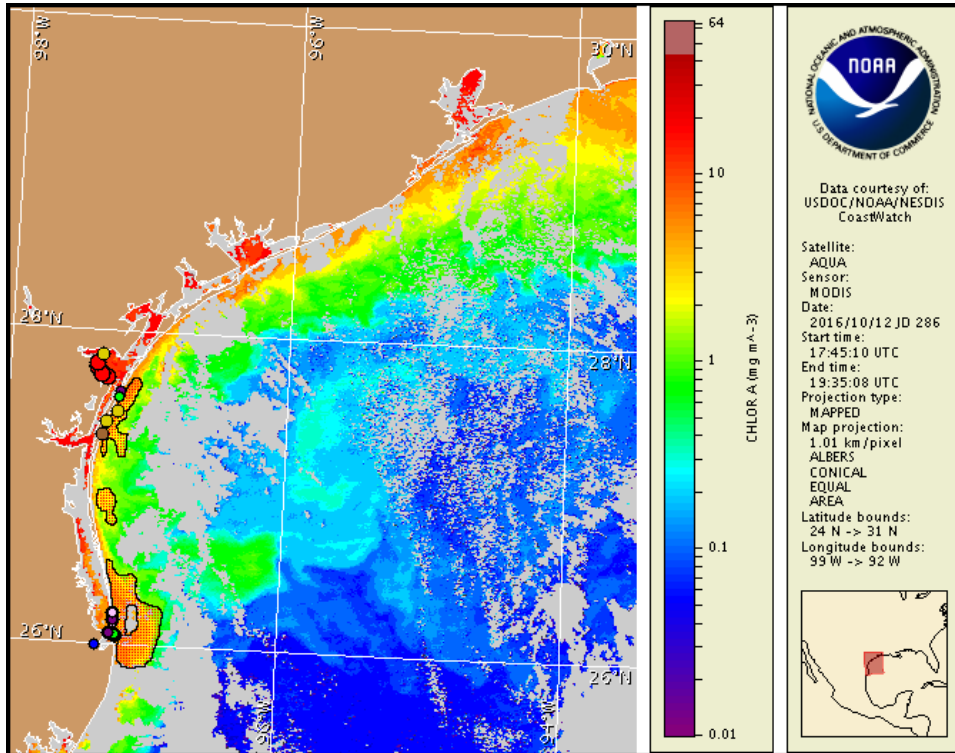
Thursday, 13 October 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, October 11, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 3 to 13: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/hab_publication/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

<http://www.tpwd.state.tx.us/landwater/water/enviroconcerns/hab/redtide/status.phtml>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Karenia brevis (commonly known as Texas red tide) ranges from not present to high concentrations along the Texas coast from the Corpus Christi Bay to Rio Grande regions. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Thursday, October 13 through Monday, October 17 is listed below:

County Region: Forecast (Duration)

Bay region-Corpus Christi Bay: Moderate (Th-M)

Bay region-Upper Laguna Madre: Very Low (Th-M)

Aransas Pass to PINS: Moderate (Th-M)

Padre Island National Seashore region: Moderate (Th-M)

Mansfield Pass to Beach Access 6 region: Moderate (Th-Su), Low (M)

Beach Access 6 to Rio Grande region: Moderate (Th-Su), Low (M)

Bay region-Lower Laguna Madre to Laguna Vista: Low (Th-M)

All Other Texas Regions: None expected (Th-M)

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Over the past few days, reports of respiratory irritation and discolored water have been received from the Corpus Christi Bay region.

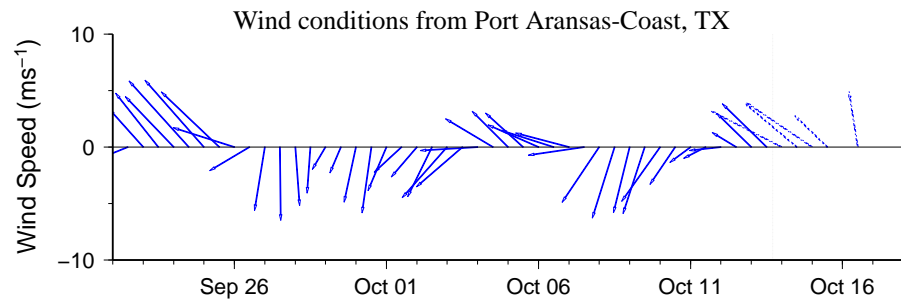
Analysis

Karenia brevis concentrations range between 'not present' and 'high' along the Texas coast from Aransas Pass to the Rio Grande (TPWD; 10/11-13). In the Corpus Christi Bay region, sampling this week continues to indicate up to 'high' *K. brevis* concentrations throughout the bay with corresponding reports of respiratory irritation and discolored water (TPWD; 10/11-12). Sampling from Texas A&M University's Imaging FlowCytobot, located on the Port Aransas ship channel, continues to indicate up to 'very low a' *K. brevis* concentrations (TAMU; 10/11-12). Sampling in the Upper Laguna Madre detected a 'very low a' *K. brevis* concentrations where previous sampling indicated *K. brevis* was not present (TPWD; 10/11). Recent sampling in the Padre Island National Seashore region continues to indicate up to 'low b' *K. brevis* concentrations (TPWD; 10/12). New sampling around the Lower Laguna Madre to Laguna Vista region continues to confirm *K. brevis* concentrations have decreased in the last week with only 'background' concentrations detected on 10/10 (Texas Red Tide Rangers). Detailed sample information and a summary of impacts can be obtained through Texas Parks and Wildlife Department at: <http://www.tpwd.state.tx.us/landwater/water/enviroconcerns/hab/redtide/status.phtml>. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

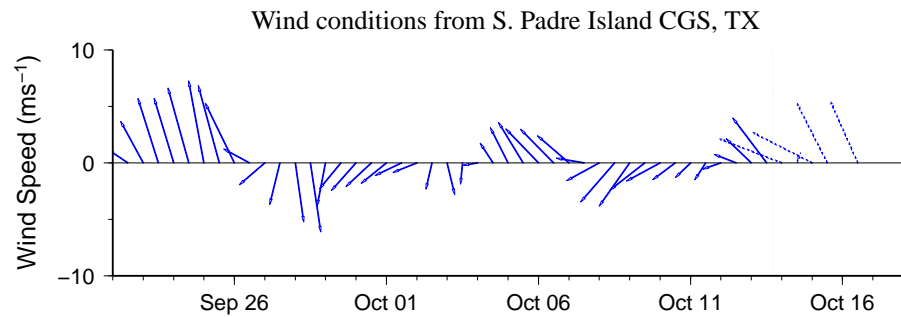
In recent MODIS Aqua imagery (10/12; shown left), elevated chlorophyll (2 to 9 $\mu\text{g/L}$) is visible along- and offshore the Texas coast from Sabine Pass to the Rio Grande. Patches of elevated chlorophyll (2-6 $\mu\text{g/L}$) likely associated with *K. brevis* are visible extending along- and offshore the Texas coast 2-11km offshore Mustang Island, alongshore and up to 18km offshore the PINS region, 6-16km offshore Mansfield Pass, alongshore and up to 27km offshore South Padre Island, and stretching approximately 350km south of the Rio Grande.

Forecast models based on predicted near-surface currents indicate a maximum transport of 10km south from the Port Aransas region, 15km north from PINS Mile Marker #15, and 20km north from Brazos Santiago Pass from October 12-16.

Davis, Kavanaugh



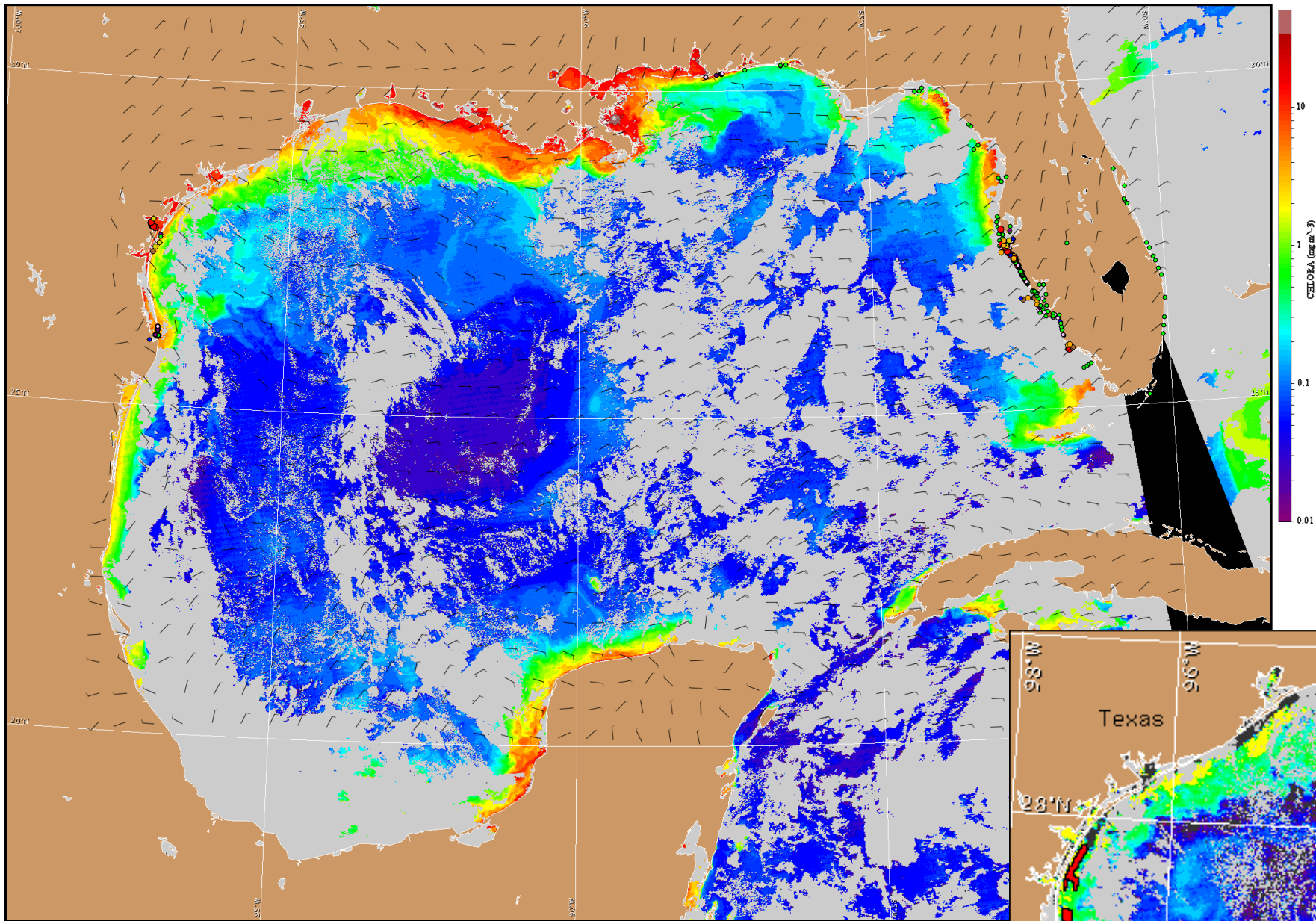
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

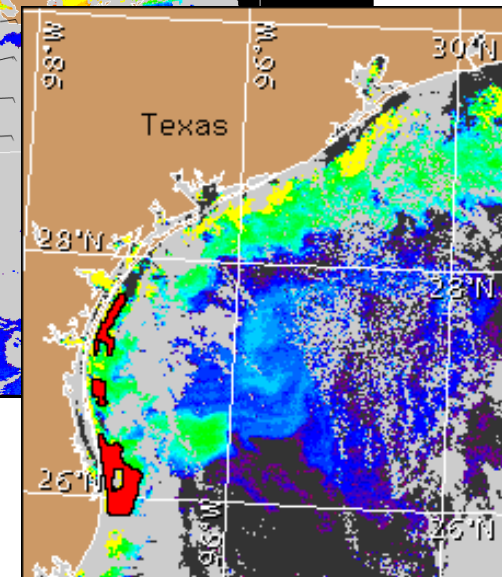
Baffin Bay to Port Aransas: Southeast winds (5-15kn, 3-8m/s) today through Monday night.

Port Mansfield to Rio Grande: Southeast winds (7-14kn, 4-7m/s) today through Monday night.



Satellite chlorophyll image and forecast winds for October 14, 2016 12Z with points representing cell concentration sampling data from October 3 to 13: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).